IN THE ABSTRACT

Title: METHOD OF CALIBRATING A SPECTROSCOPIC DEVICE

The present invention provides a method of calibrating a spectroscopic device for providing a non-invasive measurement of an analyte level in a sample. The method comprises the steps of: (a) providing a plurality of calibration algorithms; (b) taking a set of non-invasive measurements on said sample with said spectroscopic device; (c) calculating a predicted set of analyte levels for each of the calibration algorithms in response to the set of non-invasive measurements, each of the predicted sets of analyte levels being characterized by a variability range, a slope, an R¿2¿ (a square of the correlation between said set of non-invasive measurements and said predicted set of analyte levels), and a standard error of prediction; and (d) selecting an appropriate calibration algorithm by using a suitability score based on the variability range, the slope, the R^2 and the standard error of prediction for each of the predicted sets of analyte levels. A method of generating suitable calibration algorithms in step (a) is also provided.

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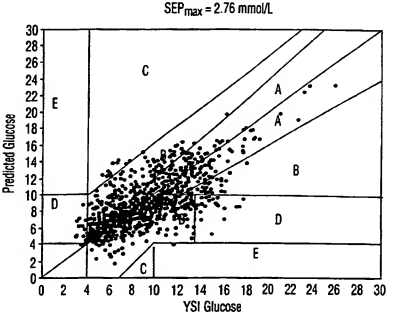

Clarke Error Grid

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(57) Abstract: The present invention provides a method of calibrating a spectroscopic device for providing a non-invasive measurement of an analyte level in a sample. The method comprises the steps of: (a) providing a plurality of calibration algorithms; (b) taking a set of non-invasive measurements on said sample with said spectroscopic device; (c) calculating a predicted set of analyte levels for each of the calibration algorithms in response to the set of non-invasive measurements, each of the predicted sets of analyte levels being characterized by a variability range, a slope, an R_i^2 (a square of the correlation between said set of non-invasive measurements and said predicted set of analyte levels), and a standard error of prediction; and (d) selecting an appropriate calibration algorithm by using a suitability score based on the variability range, the slope, the R^2 and the standard error of prediction for each of the predicted sets of analyte levels. A method of generating suitable calibration algorithms in step (a) is also provided.

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